



U.S. Department of Transportation Dockets  
Docket No. FAA-2000-7909 -19  
400 Seventh Street SW.,  
Room Plaza 401  
Washington, DC 20590

January 16, 2001.

Re: Improved Flammability Standards for Thermal/ Acoustic Insulation Materials Used  
in Transport Category Airplanes, NPRM

As distributors of Inspect foams, we support comments regarding proposed Burn-Through Test, submitted to the FAA by Inspect Foams, as given in the enclosed comment text. We would appreciate separate reply.

Best regards,

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Materials Science Engineer

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-- Inspect Foam comment text ---

Burn-Through Test [Proposed Part VII to Appendix F to Part 25]

1: Installation of Rigid materials [page 57019]:

Proposed test method states rigid and other non-conforming types of insulation materials (ie rigid foams) be burn-through tested via installation on the test rig "in a manner as to replicate the actual in-service installation". It is possible this can result in situations where a rigid foam system is tested differently than a flexible, fibrous batt system. The proposed test procedure allows fibrous ('conforming') systems to have a 32 inch wide fire barrier span a 20 inch space between steel frames. Insulation and fire barrier are over lapped and fastened to the steel frame with steel retaining clips. This use of an extra wide blanket and steel fasteners affords a 'conforming' system extra protection, for the test only, that a rigid ('non-conforming') system may not have. This imparts a difference in performance. To date, non-conforming systems (i.e. rigid foams) have not been included in FAA lead 'Round Robin' tests as the program is focused on correlating burner and equipment system performance across many laboratories. A specific example where a rigid system can be tested differently is a thin, 2 inch thick rigid foam blanket that includes over frame insulation in the design. This is a common design for regional jets. The combined blanket includes between frame rigid insulation (20 inches wide), fire barrier and overframe insulation. When installed on the test rig with 5 inch deep frames, the combined blanket containing rigid foam is positioned on and attached to the frames to replicate in-service installation. Assuming the fire barrier layer is towards the fire, the fire barrier layer rests approximately 3 inches from the hat shaped stringers, or 8 inches from the calorimeters. For a 2 inch thick fibrous system, fibrous batting and fire barrier are installed as 32 inch wide batts pressed against the hat shaped stringers and wrapped up the steel frames. Assuming the fire barrier is towards the fire, the fibrous system has its fire barrier 11 inches from the calorimeters. This difference in distance between fire barrier and calorimeter can impact pass-fail results. Also, when a rigid foam system is tested via installation on the test rig "in a manner as to replicate the actual in-service installation", does this imply that this passing system (insulation, fire barrier, cover films, and attachment articles) is certified as tested? Therefore it is not subjected to additional advisory material regarding installation (fastener types), material overlap, etc. that is forthcoming as the FAA has mentioned during the IAMFTWG meetings?

Best regards,

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--end of comments ---